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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,060	11/13/2001	Katherine W. Hughes	SP00-369	3885

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CORNING INCORPORATED
SP-TI-3-1
CORNING, NY 14831

EXAMINER

WALSH, BRIAN D

ART UNIT	PAPER NUMBER
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3722

DATE MAILED: 12/01/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/008,060

Applicant(s)

HUGHES, KATHERINE W.

Examiner

Brian D. Walsh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-17 and 19 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

FINAL ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 13 – 14, 16 and 19 are rejected, as necessitated by amendment, under 35 U.S.C. 103(a) as being unpatentable over Spridco in view of Brown and in further view of Holpp et al.

Regarding claim 19, Spridco discloses a method of forming a catalyst substrate by cutting the substrate into the desired shape (Col. 1, lines 48 – 54).

Spridco discloses a method of forming a catalyst substrate by cross-cutting the substrate to a desired shape and size, however, Spridco fails to disclose the cutting action is specifically carried out by a guided cutting filament. Spridco does teach that cutting may be carried out by a number of various methods.

Regarding claim 19, Brown discloses an apparatus and method for cutting various materials. Specifically, Brown discloses a method for cutting material by rotating first and second guides (21 and 22, respectively) with a cutting filament (26) extends between the guides. Brown teaches the filament can be inclined relative to an axis of a workpiece (Col. 2, lines 30 – 37).

Regarding claim 13, it is clear that the guides are located adjacent the workpiece area (generally in the area of 24).

Regarding claim 14, it is clear in the drawings and the description by Brown that the first pulley (21) rotates relative to the second (22) (Col. 2, lines 61 – 65).

Regarding claim 16, Brown discloses the filament is disposed about a closed path that includes a section between the first and second guides (21, 22) (see figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cutting action as taught by Spridco to include the rotating cutting filament as taught by Brown since Brown teaches the use of this method in order to cut intricate or delicate patterns in stock material (Col. 1, lines 37 – 39).

2. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spridco in view of Brown and in further view of Collins.

Spridco, as modified by Brown, discloses all of the elements as set forth in the above rejections, however, Spridco as modified by Brown fails to disclose a method of cutting including an open path system with a path section extending between first and second guides.

Collins discloses an apparatus and method nearly identical to both Brown and the instant invention including translating a filament on a cutting device between two guides. Collins further discloses a supply spool (100) and a “take-up” spool (102) defining an open path system including a section between the two guides.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the closed loop method of Brown to be an open loop method as taught by Collins since Collins discloses having a feed and ‘take-in’ in

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opposition to a closed system allows for an incremental advance of the cutter filament after each cut while maintaining an axial tension during cutting (Col. 2, lines 35 – 39).

3. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spridco in view of Brown and in further view of Holpp et al.

Spridco and Brown disclose all of the elements as set forth in the above rejections including an apparatus capable of cutting a catalyst substrate into a particular shape, however, Spridco and Brown fail to explicitly disclose a catalyst substrate being cut into a shaped face, concentric with a longitudinal axis thereof.

Holpp discloses a method for forming a catalyst substrate including forming a frusto-conical shape on a face of the substrate, concentric with a longitudinal axis of the substrate (figure 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cutting of a catalyst substrate taught by Spridco, as modified by Brown, to include the concentrically positioned frusto-conical shape as taught by Holpp et al. since Holpp et al. teaches the placement of the frusto-conical shape on the catalyst face in order to achieve good distribution of flow and cold-starting performance (Col. 7, lines 1 – 5).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Allowable Subject Matter

5. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: claim 18 discloses elements drawn to a method of shaping an end-face of a catalyst substrate utilizing a cutting filament extending between rotating guides. Claim 18 discloses shaping an end-face of the substrate such that it is non-concentric with a longitudinal axis thereof. Catalyst substrates are traditionally cylinder-like in shape. For varying applications catalyst substrates may be packaged in a variety of configurations, such as in Roth (U.S. Pat. No. 6,623,704) wherein the substrate is contained in a semi-circular shell. However, the prior art did not disclose nor render obvious shaping an end-face to a catalyst substrate that is non-concentric with a longitudinal axis of the substrate. Roth discloses a curved shape, however, it is not apparent that the substrate is non-

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concentric with what could be called the longitudinal axis of the substrate. On the contrary, it appears the substrate is symmetrically and concentrically disposed as such a shape would allow.

Response to Arguments

7. Applicant's arguments, see paper no. 6, filed 15 September 2003, with respect to the rejection(s) of claim(s) 12 - 18 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

Faxing of Responses to Office Actions (UPDATED)

8. In order to reduce pendency and avoid potential delays, TC 3700 is encouraging FAXing of responses to **ALL OFFICE ACTIONS** directly into the Group at **(703) 872-9306**. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the Examiner and art unit at the top of your cover sheet. Papers submitted via FAX into TC 3700 will be promptly forwarded to the Examiner.

PLEASE NOTE: the **fax number in the above paragraph has changed**. It is to be used for all responses, **including after-final communications**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Walsh whose telephone number is (703) 605-0638. The examiner can normally be reached on Monday - Friday 8:30 A.M. to 6:00 P.M., with every-other Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (703) 308-2159.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.



BDW

November 25, 2003



A. L. WELLINGTON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700